

and as the movable section of the fixture is fed along, a slot is milled to the same radius as the tracks.

Pivoted Type of Radial Fixture. — The curved sides of the sight-bar and also the beveled surfaces along one edge are milled by means of a radial fixture of the type shown in Fig. 18. This general style of fixture is used extensively in connection with other operations on the sighting mechanism. It has a very heavy base casting *A*, which is bolted to the table of the machine. The sight-bar *B* is held on the swinging part *C* of the fixture, which is pivoted at *D*. At the work-holding end of the swinging member there is a swiveling nut through which passes a feed-screw. This feed-screw is connected by gearing located at the end of the table with the regular feed-screw of the machine, the nut in the milling machine having been removed; consequently, when a sight-bar is being milled, the part *C* of the fixture is given a circular movement about the pivot *D* as the power feed traverses it from one end of its swing to the other. The illustration shows the machine milling the beveled edges on the top of the sight-bar. When the sides are being milled, the cutter shown at *E* is used. After one side has been milled, the stops *F* are transferred to the opposite side so that they will not interfere with the cutter. The gage used for testing the radius of the inner surface forms part of the fixture, and consists of a bar *G* which is free to slide through a block *H*. This block is also free to turn about the same pivot which is used for the swinging part of the fixture. The radius of the sight-bar is tested by bringing the gage point into contact with it and then noting the position of the end of bar *G* relative to the outer surface of block *H*. When the end of the bar and the surface of the block are exactly in the same plane, as indicated by tests made with a dial gage, the work is correct.

The sight-bar is located in the fixture by the finished face of the head, which also serves as a common locating point for many other operations. There is considerable overhang of the fixture relative to the machine table, and in order to avoid sag, the overhanging part is counterbalanced by a heavy weight attached to one end of the wire cable *J* which passes over pulleys fastened to the ceiling.